Table 6

Digital: Analog / 6:1

Cellular Operators Bandwidth Devoted to Analog: 10 MHz

Bandwidth	Effective Capacity*	Market Share	HHI Contribution
25	160	47.40/	202
			302 302
			6 8 1
40	240	26.1%	681
20	120	13.0%	170
170	920		2,136
	35 35 40 40 20	Bandwidth Capacity* 35 160 35 160 40 240 40 240 20 120	Bandwidth Capacity* Share 35 160 17.4% 35 160 17.4% 40 240 26.1% 40 240 26.1% 20 120 13.0%

^{*} Effective Capacity is defined as bandwidth devoted to digital multiplied by the ratio of digital's advantage over analog plus bandwidth devoted to analog.

Table 7

Digital: Analog / 6:1

Cellular Operators Bandwidth Devoted to Analog: 10 MHz

Firms	Initial	Effective	Market	HHI	Acquired	Final	Effective	Market	нн
	Bandwidth	Capacity*	Share	Contribution	Bandwidth	Bandwidth	Capacity*	Share	Contribution
Cellular 1	35	160	17.4%	302	5	40	190	20.7%	427
Cellular 2	35	160	17.4%	302		35	160	17.4%	3 02
3	40	240	26.1%	681		40	240	26.1%	681
4	40	240	26.1%	681		40	240	26.1%	6 81
5	20	120	13.0%	170	-5	15	90	9.8%	96
Totals	170	920		2,136		170	920		2,186
Herfindahl-	Hirschman A	Analysis	•	Initial HHI Change	2,136 50				
		•		Final HHI	2,186	_			

^{*} Effective Capacity is defined as bandwidth devoted to digital multiplied by the ratio of digital's advantage over analog plus bandwidth devoted to analog.

Table 8

Digital: Analog / 6:1

Cellular Operators Bandwidth Devoted to Analog: 10 MHz

Firms	Initial Bandwidth	Effective Capacity*	Market Share	HHI Contribution	Acquired Bandwidth	Final Bandwidth	Effective Capacity*	Market Share	HHI Contribution
Cellular 1	35	160	17.4%	302	5	40	190	20.7%	427
Cellular 2	35	160	17.4%	302		35	160	17.4%	302
3	40	240	26.1%	681	-5	35	210	22.8%	521
4	40	240	26.1%	681		40	240	26.1%	681
5	20	120	13.0%	170		20	120	13.0%	170
Totals	170	920		2,136		170	920		2,101
				Initial HHI	2,136				
Herfindahl-	Hirschman A	nalysis		Change	-35	-			
				Final HHI	2,101				

^{*} Effective Capacity is defined as bandwidth devoted to digital multiplied by the ratio of digital's advantage over analog plus bandwidth devoted to analog.

Table 9

Digital : Analog / 6 : 1

Ĺ	W	ith Analog Ha	ndicap (10N	Hz)	Without Analog Handicap				
Firms		Effective	Market	HHI		Effective	Market	нні	
	Bandwidth	Capacity*	Share	Contribution	Bandwidth	Capacity*	Share	Contribution	
Cellular 1	25	100	10.9%	118	25	150	14.7%	216	
Cellular 2	25	100	10.9%	118	25	150	14.7%	216	
3	30	180	19.6%	383	30	180	17.6%	311	
4	30	180	19.6%	383	30	180	17.6%	311	
5	20	120	13.0%	170	20	120	11.8%	138	
6	10	60	6.5%	43	10	60	5.9%	35	
7	10	60	6.5%	43	10	60	5.9%	35	
8	10	60	6.5%	43	10	60	5.9%	35	
9	10	60	6.5%	43	10	60	5.9%	35	
Totals	170	920		1,342	170	1,020	- May are a second part of the control of the contr	1,332	
Herfindahl-	Hirschman An	alysis		1,342				1,332	

^{*} Effective Capacity is defined as bandwidth devoted to digital multiplied by the ratio of digital's advantage over analog plus bandwidth devoted to analog.

Table 10

Digital: Analog / 1:1
Entry of Two SMRs with 5 MHz Each

	Ρ	re-SMR En	itry	Post-SMR Entry				
Firms		Market	ННІ		Market	HHI		
	Bandwidth	Share	Contribution	Bandwidth	Share	Contribution		
Cellular 1	25	14.7%	216	25	13.9%	193		
Cellular 2	25	14.7%	216	25	13.9%	193		
3	30	17.6%	311	30	16.7%	278		
4	30	17.6%	311	30	16.7%	278		
5	20	11.8%	138	20	11.1%	123		
6	10	5.9%	35	10	5.6%	31		
7	10	5.9%	3 5	10	5.6%	31		
8	10	5.9%	35	10	5.6%	31		
9	10	5.9%	35	10	. 5.6%	31		
SMR 10				5	2.8%	8		
SMR 11				5	2.8%	8		
Totals	170		1,332	180		1,204		
Herfindahi-	lirschman An	alysis	1,332			1,204		

Table 11A

HHI Calculations

Digital: Analog / 1:1 Entry of One SMR with 10 MHz

	Р	re-SMR En	try	Po	st-SMR Er	itry
Firms		Market	нні		Market	нні
	Bandwidth	Share	Contribution	Bandwidth	Share	Contribution
Cellular 1	35	20.6%	424	35	19.4%	378
Cellular 2	35	20.6%	424	35	19.4%	378
3	40	23.5%	554	40	22.2%	494
4	40	23.5%	554	40	22.2%	494
5	20	11.8%	138	20	11.1%	123
SMR 6				10	5.6%	31
Totals	170		2,093	180		1,898
Herfindahl-H	lirschman Ana	alysis	2,093			1,898

Table 11B

HHI Calculations
Digital: Analog / 1:1 One SMR with 10 MHz

Firms	Initial	Market	HHI	Acquired	Final	Market	нні
	Bandwidth	Share	Contribution	Bandwidth	Bandwidth	Share	Contribution
Cellular 1	35	19.4%	378	5	40	22.2%	494
Cellular 2	35	19.4%	378		35	19.4%	378
3	40	22.2%	494		40	22.2%	494
4	40	22.2%	494		40	22.2%	494
5	20	11.1%	123		20	11.1%	123
SMR 6	10	5.6%	31	-5	5	2.8%	8
Totals	180		1,898		180		1,991
Herfindahl-	lirschman Ana	alveie	Initial HHI Change	1,898 93			
		ary Sie	Final HHI	1,991	-		

Table 12

CTIA PROPOSAL

HHI Calculations
Digital: Analog / 6:1

	W	ith Analog Hai	ndicap (10N		Without Analog Handicap				
Firms		Effective	Market	HHI		Effective	Market	ННІ	
	Bandwidth	Capacity*	Share	Contribution	Bandwidth	Capacity*	Share	Contribution	
Cellular 1	25	100	10.9%	118	25	150	14.7%	216	
Cellular 2	25	100	10.9%	118	25	150	14.7%	216	
3	20	120	13.0%	170	20	120	11.8%	138	
4	20	120	13.0%	170	20	120	11.8%	138	
5	20	120	13.0%	170	20	120	11.8%	138	
6	20	120	13.0%	170	20	120	11.8%	138	
7	10	60	6.5%	43	10	6 0	5.9%	35	
8	10	60	6.5%	43	10	60	5.9%	35	
9	10	60	6.5%	43	10	60	5.9%	35	
10	10	60	6.5%	43	10	60	5.9%	35	
Totals	170	920		1,087	170	1,020		1,125	
Herfindahl-l	Hirschman An	alysis		1,087				1,125	

^{*} Effective Capacity is defined as bandwidth devoted to digital multiplied by the ratio of digital's advantage over analogical plus bandwidth devoted to analog.

Source: Charles River Associates.